

## Overview

The VE-120 Video Extender System allows you to extend the distance between the computer system unit and the display monitor by up to 130 meters (430 feet). It accomplishes this by means of a local transmitting unit (VE-120L), and remote receiving unit (VE-120R), connected by standard Category 5 twisted pair Ethernet cable.

**Note:** In order to display the data on more than one remote monitor, the VE-122 Remote Unit is also available. While basically similar to the VE-120R, it incorporates an RJ-45 output jack for daisy chaining to additional Remote Units.

The VE-120 Video Extender System is ideal for factory and construction sites, or any installation where the display needs to reside in a harsh setting, but you want the system equipment kept in an environmentally friendly location. The Extender System is also useful for control and security purposes, where you can have the system unit in a secure area at the same time that you put the display in an area that is convenient for viewing.

Other useful applications for the Video Extender system include:

- Financial: the remote display of stock market information
- Education: the remote display of lectures and lessons to lecture halls and classrooms
- Business: the remote display of addresses to overflow rooms; video conferencing; and demos

## Features

- Uses Category 5 Ethernet Cable: For Economy; Easy Installation; and Utmost Data Transfer Reliability
- High Resolution Video - Up To 1600 x 1200@100 m
- Supports VGA, SVGA, and Multisync Monitors
- Long Distance Transmission - Up to 130 m (430')
- Daisy Chainable (VE-122)

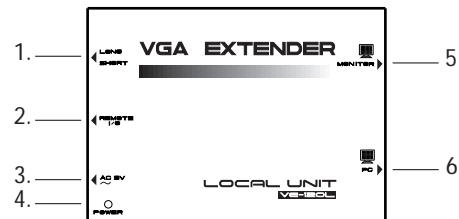
## System Requirements

- IBM PC/AT, PC Compatible, Notebook, Laptop, or IBM PS/2 with a VGA output port.
- VGA monitor
- Grounding wire with no potential difference between the AC sources for the Local and Remote units.

**Warning!** Make absolutely sure that a protective ground wire with no potential difference is established between the AC sources for the Local and Remote units. Unequal grounding potential between the Local and Remote units will result in damage to the units and connected devices.

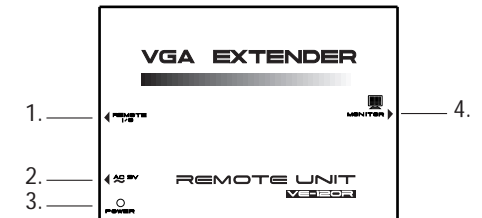
### The Local Unit (VE-120L)

1. Range Switch  
Slide the switch to the **Long** position if the Remote Unit is located a long distance away; slide the switch to the **Short** position if the Remote Unit is located a short distance away.
2. Remote I/O  
The Category 5 twisted pair cable that connects to the Remote Unit plugs into this connector.\*
3. AC 9V Power Jack  
The power supply cable plugs into this connector.
4. Power LED  
Lights to indicate that the unit is receiving power.
5. Monitor  
The local monitor's VGA cable plugs into this connector.
6. PC  
The VGA extension cable that connects to the computer's VGA port plugs into this connector.



### The Remote Unit (VE-120R)

1. Remote I/O  
The Category 5 twisted pair cable that connects to the Local Unit plugs into this connector.\*
2. AC 9V Power Jack  
The power supply cable plugs into this connector.
3. Power LED  
Lights to indicate that the unit is receiving power.
4. Monitor  
The remote monitor's VGA cable plugs into this connector.



## Installation

Refer to the diagrams above as you follow the step by step directions below:

1. Make sure that the computer and monitors you are using for the installation are all powered Off.
2. Plug the male end of a male to female VGA extension cable into the computer's video output port; plug the female end of the cable into the Local Unit's **PC** port.
3. Plug the local monitor's VGA cable into the Local Unit's **Monitor** port
4. Plug one of the power adapters (supplied with this package) into an AC source; plug the adapter's power cable into the Local Unit's **AC 9V** Power Jack
5. Plug one end of the Category 5 twisted pair cable into the Local Unit's **Remote I/O** port\*

## VE-120

6. Slide the Range Switch to the **Long** position if the Remote Unit location is a long distance away; slide the switch to the **Short** position if the Remote Unit location is a short distance away

7. Plug the other end of the Category 5 twisted pair cable into the Remote Unit's **Remote I/O** port\*

**Note:** See the Cable Length table in the Appendix for typical resolution/refresh rate/distance ratios.

8. Plug the remote monitor's VGA cable into the Remote Unit's **Monitor** port

9. Plug the second power adapter (supplied with this package) into an AC source; plug the adapter's power cable into the Remote Unit's **AC 9V** Power Jack

10. Power On the computer and monitors

\* If Category 5 cable was supplied as part of this package, it is quite short and primarily intended for testing purposes. For practical use, you will probably want to purchase a longer cable.

## Technical Details

### Troubleshooting

Symptom	Action
No Video	Make sure that all cables are securely plugged into their sockets.

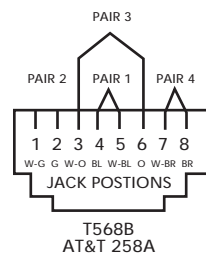
### Cable Length Table

Resolution	Distance		
	@ 60 Hz	@ 75 Hz	@ 85 Hz
640 x 480	130	100 m	
800 x 600		100 m	
1024 x 768		100 m	
1280 x 1024		100 m	
1600 x 1200	100 m	80 m	

### TP Pin Assignments

Pin	Assignment
1	V OUT G
2	/ V OUT G
3	V OUT B
4	V OUT R
5	/ V OUT R
6	/ V OUT B
7	GND
8	GND

### TP Wiring Diagram



## Specifications

Function	VE-120L	VE-120R	VE-122
Connectors	Input: 15 pin HDB Male Output: 15 pin HDB Female	RJ-45 Receptacle 15 pin HDB Female	RJ-45 Receptacle 5 pin HDB Female RJ-45 Receptacle
LEDs	1 Power		
VGA Res	640 x 480 @ 130 m (430') - 1600 x 1200 @ 100 m (333')		
Signal Type	VGA, SVGA, Multisync		
Cable	Type: Category 5 STP Distance: 130 m (430')		
Power Consumption	AC 9V 130mA (max.)	AC 9V 180mA (max.)	
Housing	Metal		
Weight	240 g	235g	210g
Dimensions (L x W x H)	119 x 86 x 58 mm		

## Limited Warranty

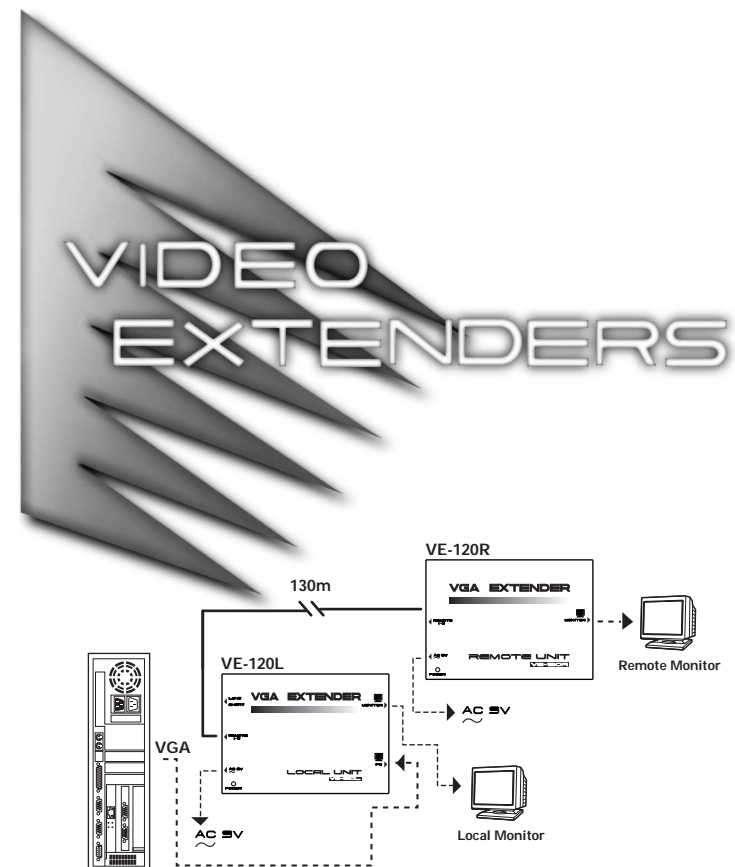
IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquiries, please contact your direct vendor.

## Radio & TV Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.



## USER'S MANUAL

### VE-120

Read this guide thoroughly and follow the installation and operation procedures carefully to prevent any damage to the units and/or any of the devices they connect to.

The VE-120 package contains:

* VE-120L	x 1
* VE-120R	x 1
* VGA Cable	x 1
* Category 5 STP Cable (optional)	
* Power Adapter	x 2
* User's Manual	x 1

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